

## FILM MEASUREMENT WITH INTERLEAVED LASER CLEANING

Gary R. Janik

Dan G. Georgesco

## ABSTRACT OF THE DISCLOSURE

A system for analyzing a thin film simultaneously applies a pulsed cleaning beam and a measurement beam to an analysis location on a test sample to enhance measurement accuracy. The pulsed cleaning beam prevents contaminant regrowth on the analysis location during the actual measurement. To minimize the effects of thermal transients from the pulsed cleaning beam on measurement data, cleaning pulses can be timed to fall between data samples. Alternatively, data sampling can be blocked during each cleaning operation (i.e., each cleaning pulse and subsequent cooldown period) or data levels can be clamped at measurement levels from just before the start of the cleaning operation for the duration of the cleaning operation. Alternatively, data samples taken during each cleaning operation can be discarded or replaced with data samples from just before the cleaning operation using post-processing techniques.